Statement of Basis of the Federal Operating Permit

Enterprise Hydrocarbons L.P.

Site Name: Armstrong Gas Plant
Physical Location: 10 Miles South Of Yoakum On FM 682
Nearest City: Yoakum
County: DeWitt

Permit Number: O3184
Project Type: Minor Revision

The North American Industry Classification System (NAICS) Code: 211112
NAICS Name: Natural Gas Liquid Extraction

This Statement of Basis sets forth the legal and factual basis for the draft changes to the permit conditions resulting from the minor revision project in accordance with 30 TAC §122.201(a)(4). The applicant has submitted an application for a minor permit revision per §§ 122.215-217. This document may include the following information:

A description of the facility/area process description;
A description of the revision project;
A basis for applying permit shields;
A list of the federal regulatory applicability determinations;
A table listing the determination of applicable requirements;
A list of the New Source Review Requirements;
The rationale for periodic monitoring methods selected;
The rationale for compliance assurance methods selected;
A compliance status; and
A list of available unit attribute forms.

Prepared on: August 28, 2018

Operating Permit
Basis of Determination

Description of Revisions

The existing diesel tank, identified as TANK 012, was replaced with a new 4,060 gallon diesel tank, also identified as TANK 012. The application included negative applicability determinations for 40 CFR Part 60 Subparts K, Ka, and Kb, 40 CFR Part 60, Subpart OOOOa, and 30 TAC Chapter 115, Storage of VOCs for the new diesel tank.

Permit Area Process Description

The Armstrong Gas Plant includes cryogenic and fractionation treatment for inlet gas, produced fluids separation, natural gas and natural gas liquids (condensate) processing and treatment, and natural gas liquids storage. The Armstrong Gas Plant is subdivided into three general plant areas: Key Plant Area (Plant No. 2), Randal Plant Area (Plant No. 1), and the Lean Oil Plant Area.

Facility processes include gas treating through the cryogenic fractionation system, natural gas compression, natural gas treatment and processing, produced fluids separation, and storage. The facility is a gas plant for incoming natural gas streams. The facility consists of typical gas plant process equipment, an out of service lean oil plant process area, and aboveground storage tanks. Produced fluids from facility process equipment are transferred to the on-site storage tank via flow lines. Used oil and wash water from compressor skids are captured in the facilities open drain system that transfers the fluids to on-site storage tanks via process sumps and flow lines. These liquids are further removed by trucks.

Flare No. 3 at the Armstrong Gas Plant treats flash gas from the nearby Gohlke Treating Plant. The flare will also burn sweet natural gas as necessary to maintain proper combustion. Butane and propane gas streams from transport trucks will also be flared as necessary. Each truck may bring in a maximum of 500 gallons, as many as ten times a month. A maximum of 24 trucks per year may bring product for flaring.

The Gohlk Treating Plant treats 110 million scf/day of natural gas to remove carbon dioxide (CO2) and hydrogen sulfide (H2S). Incoming natural gas enters an inlet separator to remove condensate. The gas then comes in contact with methyl di-ethanol amine (MDEA) to remove CO2 and H2S. The amine solution is regenerated via an amine stripping still and a reboiler with a heat input of 111 million Btu/hr. Fresh amine solution is periodically added for makeup. The sweet gas saturated with water enters a TEC glycol dehydrator to remove water vapor. From the glycol dehydrator, the sweet and dry gas is shipped by pipeline to clients downstream or to the Armstrong Gas Plant. As a result, the facility is also known as the Armstrong Inlet Treating Plant. The glycol reboiler rating is 2 million Btu/hr. The fuel for the amine steam boiler and the glycol reboiler is dry and sweet natural gas.

The acid gas, CO2 and H2S, generated in the still vent is sent to a Sulfa-Scrub H2S treatment unit. Here the H2S flow rate is reduced and vented along with the CO2. The H2S emissions are monitored daily by testing for H2S by draeger tubes. Fresh Sulfa-Scrub is stored in tanks and the spent Sulfa-Scrub is first stored in a storage tank and then sent to the off-site disposal wells.

The Gohlke Compressor Station compresses sweet natural gas to increase pressure for pipeline transmission. Incoming natural gas first enters an inlet separator where liquids are removed. The separated liquids are piped to a slop oil storage tank. The slop oil liquids are periodically transferred from the facility by truck. After the liquids are separated, the gas is piped to a compressor. There are two 13.76 MMBtu/hr turbine units on-site.

FOPs at Site

The “application area” consists of the emission units and that portion of the site included in the application and this permit. Multiple FOPs may be issued to a site in accordance with 30 TAC § 122.201(e). When there is only one area for the site, then the application information and permit will include all units at the site. Additional FOPs that exist at the site, if any, are listed below.

Additional FOPs: None

Major Source Pollutants

The table below specifies the pollutants for which the site is a major source:

Major Pollutants	VOC, NOX, HAPS, CO

Reading State of Texas's Federal Operating Permit

The Title V Federal Operating Permit (FOP) lists all state and federal air emission regulations and New Source Review (NSR) authorizations (collectively known as "applicable requirements") that apply at a particular site or permit area (in the event a site has multiple FOPs). **The FOP does not authorize new emissions or new construction activities.** The FOP begins with an introductory page which is common to all Title V permits. This page gives the details of the company, states the authority of the issuing agency, requires the company to operate in accordance with this permit and 30 Texas Administrative Code (TAC) Chapter 122, requires adherence with NSR requirements of 30 TAC Chapter 116, and finally indicates the permit number and the issuance date.

This is followed by the table of contents, which is generally composed of the following elements. Not all permits will have all of the elements.

- General Terms and Conditions
- Special Terms and Conditions
    - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
    - Additional Monitoring Requirements
    - New Source Review Authorization Requirements
    - Compliance Requirements
    - Protection of Stratosphere Ozone
    - Permit Location
    - Permit Shield (30 TAC § 122.148)
- Attachments
    - Applicable Requirements Summary
        - Unit Summary
        - Applicable Requirements Summary
    - Additional Monitoring Requirements
    - Permit Shield
    - New Source Review Authorization References
    - Compliance Plan
    - Alternative Requirements
- Appendix A
    - Acronym list

General Terms and Conditions

The General Terms and Conditions are the same and appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. The second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit. The fifth paragraph provides details on submission of reports required by the permit.

Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. Units with only site-wide requirements are addressed on Form

OP-REQ1 and are not required to be listed separately on a OP-UA Form or Form OP-SUM. Form OP-SUM must list all units addressed in the application and provide identifying information, applicable OP-UA Forms, and preconstruction authorizations. The various OP-UA Forms provide the characteristics of each unit from which applicable requirements are established. Some exceptions exist as a few units may have both site-wide requirements and unit specific requirements.

Other conditions. The other entries under special terms and conditions are in general terms referring to compliance with the more detailed data listed in the attachments.

Attachments

Applicable Requirements Summary. The first attachment, the Applicable Requirements Summary, has two tables, addressing unit specific requirements. The first table, the Unit Summary, includes a list of units with applicable requirements, the unit type, the applicable regulation, and the requirement driver. The intent of the requirement driver is to inform the reader that a given unit may have several different operating scenarios and the differences between those operating scenarios.

The applicable requirements summary table provides the detailed citations of the rules that apply to the various units. For each unit and operating scenario, there is an added modifier called the “index number,” detailed citations specifying monitoring and testing requirements, recordkeeping requirements, and reporting requirements. The data for this table are based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

Additional Monitoring Requirement. The next attachment includes additional monitoring the applicant must perform to ensure compliance with the applicable standard. Compliance assurance monitoring (CAM) is often required to provide a reasonable assurance of compliance with applicable emission limitations/standards for large emission units that use control devices to achieve compliance with applicant requirements. When necessary, periodic monitoring (PM) requirements are specified for certain parameters (i.e. feed rates, flow rates, temperature, fuel type and consumption, etc.) to determine if a term and condition or emission unit is operating within specified limits to control emissions. These additional monitoring approaches may be required for two reasons. First, the applicable rules do not adequately specify monitoring requirements (exception- Maximum Achievable Control Technology Standards (MACTs) generally have sufficient monitoring), and second, monitoring may be required to fill gaps in the monitoring requirements of certain applicable requirements. In situations where the NSR permit is the applicable requirement requiring extra monitoring for a specific emission unit, the preferred solution is to have the monitoring requirements in the NSR permit updated so that all NSR requirements are consolidated in the NSR permit.

Permit Shield. A permit may or may not have a permit shield, depending on whether an applicant has applied for, and justified the granting of, a permit shield. A permit shield is a special condition included in the permit document stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirement(s) or specified applicable state-only requirement(s).

New Source Review Authorization References. All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

Compliance Plan. A permit may have a compliance schedule attachment for listing corrective actions plans for any emission unit that is out of compliance with an applicable requirement.

Alternative Requirements. This attachment will list any alternative monitoring plans or alternative means of compliance for applicable requirements that have been approved by the EPA Administrator and/or the TCEQ Executive Director.

Appendix A

Acronym list. This attachment lists the common acronyms used when discussing the FOPs.

Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(B) addressed in the Special Terms and Conditions

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3 for stationary vents subject to 30 TAC § 111.111(a)(1)(B) to verify compliance with the 20% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(B).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

Stationary Vents subject to 30 TAC Chapter 111 not addressed in the Special Terms and Conditions

All other stationary vents subject to 30 TAC Chapter 111 not covered in the Special Terms and Conditions are listed in the permit's Applicable Requirement Summary. The basis for the applicability determinations for these vents are listed in the Determination of Applicable Requirements table.

Federal Regulatory Applicability Determinations

The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

Regulatory Program	Applicability (Yes/No)
Prevention of Significant Deterioration (PSD)	No
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes

Regulatory Program	Applicability (Yes/No)
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	No
40 CFR Part 63 - NESHAPs for Source Categories	Yes
Title IV (Acid Rain) of the Clean Air Act (CAA)	No
Title V (Federal Operating Permits) of the CAA	Yes
Title VI (Stratospheric Ozone Protection) of the CAA	No
CSAPR (Cross-State Air Pollution Rule)	No

Basis for Applying Permit Shields

An operating permit applicant has the opportunity to specifically request a permit shield to document that specific applicable requirements do not apply to emission units in the permit. A permit shield is a special condition stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements. A permit shield has been requested in the application for specific emission units. For the permit shield requests that have been approved, the basis of determination for regulations that the owner/operator need not comply with are located in the “Permit Shield” attachment of the permit.

Insignificant Activities

In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OP-REQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

1. Office activities such as photocopying, blueprint copying, and photographic processes.
2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
4. Outdoor barbecue pits, campfires, and fireplaces.
5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.
7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
8. Storage and handling of sealed portable containers, cylinders, or sealed drums.
9. Vehicle exhaust from maintenance or repair shops.
10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.

13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feedwater) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
15. Well cellars.
16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
18. Equipment used exclusively for the melting or application of wax.
19. All closed tumblers used for the cleaning or deburring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
20. Shell core and shell mold manufacturing machines.
21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
22. Equipment used for inspection of metal products.
23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
25. Battery recharging areas.
26. Brazing, soldering, or welding equipment.

Determination of Applicable Requirements

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at www.tceq.texas.gov/permitting/air/nav/air_all_ua_forms.html.

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc.. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in the column entitled "Basis of Determination." Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at www.tceq.texas.gov/permitting/air/nav/air_supportsys.html. The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards, monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column "Changes and Exceptions to RRT." If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word "None" will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an

applicable requirement, it will be explained in detail in the portion of this document entitled “Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected.”

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled “Basis for Applying Permit Shields” specifies which units, if any, have a permit shield.

Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.

Determination of Applicable Requirements

Unit ID	Regulation	Index Number	Basis of Determination*
EMERGEN	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification after June 12, 2006. Manufactured Date = Date of manufacture is on or after January 1, 2009. Test Cell = The SI ICE is not being tested at an engine test cell/stand. Certified = Purchased a certified SI ICE. Operation = Operating and maintaining the certified SI ICE and control device according to manufacturer's written instructions. Temp Replacement = The SI ICE is not acting as a temporary replacement. Horsepower = Maximum engine power greater than 25 HP and less than or equal to 100 HP. Fuel = SI ICE that is a rich-burn engine that uses liquefied petroleum gas (LPG). Service = SI ICE is an emergency engine. Lean Burn = The SI ICE is a rich-burn engine. Commencing = SI ICE that is commencing new construction.
EMERGEN	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP less than 100 HP. Construction/Reconstruction Date = Commenced construction or reconstruction on or after June 12, 2006. Stationary RICE Type = 4 stroke spark ignited rich burn engine
FIREPUMP	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than or equal to 100 HP and less than 250 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Stationary RICE Type = Compression ignition engine
UNIT 185	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification after June 12, 2006. Manufactured Date = Date of manufacture is on or after July 1, 2007 to June 30, 2010. Test Cell = The SI ICE is not being tested at an engine test cell/stand. Certified = Purchased a non-certified SI ICE. Temp Replacement = The SI ICE is not acting as a temporary replacement. Horsepower = Maximum engine power greater than or equal to 1350 HP. Fuel = SI ICE that uses natural gas. Service = SI ICE is a non-emergency engine. Commencing = SI ICE that is commencing new construction.
UNIT 185	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than 500 HP. Performance Test = No previous performance test used, a performance test is conducted to demonstrate initial compliance Construction/Reconstruction Date = Commenced construction or reconstruction on or after June 12, 2006.

Unit ID	Regulation	Index Number	Basis of Determination*
			Control Technique = Oxidation catalyst Different Schedule = Schedule specified in Subpart ZZZZ for submission of reports applies. Emission Limitation = Reducing carbon monoxide emissions from the stationary RICE Monitoring System = Continuous parameter monitoring system Service Type = Normal use. Stationary RICE Type = 4 stroke spark ignited lean burn engine.
UNIT 186	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification after June 12, 2006. Manufactured Date = Date of manufacture is on or after July 1, 2007 to June 30, 2010. Test Cell = The SI ICE is not being tested at an engine test cell/stand. Certified = Purchased a non-certified SI ICE. Temp Replacement = The SI ICE is not acting as a temporary replacement. Horsepower = Maximum engine power greater than or equal to 1350 HP. Fuel = SI ICE that uses natural gas. Service = SI ICE is a non-emergency engine. Commencing = SI ICE that is commencing new construction.
UNIT 186	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than 500 HP. Performance Test = No previous performance test used, a performance test is conducted to demonstrate initial compliance Construction/Reconstruction Date = Commenced construction or reconstruction on or after June 12, 2006. Control Technique = Oxidation catalyst Different Schedule = Schedule specified in Subpart ZZZZ for submission of reports applies. Emission Limitation = Reducing carbon monoxide emissions from the stationary RICE Monitoring System = Continuous parameter monitoring system Service Type = Normal use. Stationary RICE Type = 4 stroke spark ignited lean burn engine.
UNIT 928	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification prior to June 12, 2006.
UNIT 928	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than 500 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Normal use. Stationary RICE Type = 2 stroke spark ignited lean burn engine
UNIT 929	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification prior to June 12, 2006.

Unit ID	Regulation	Index Number	Basis of Determination*
UNIT 929	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than 500 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Normal use. Stationary RICE Type = 2 stroke spark ignited lean burn engine
UNIT 931	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification prior to June 12, 2006.
UNIT 931	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than 500 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Normal use. Stationary RICE Type = 2 stroke spark ignited lean burn engine
UNIT 932	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification prior to June 12, 2006.
UNIT 932	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than 500 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Normal use. Stationary RICE Type = 2 stroke spark ignited lean burn engine
UNIT 933	40 CFR Part 60, Subpart JJJJ	60JJJJ	Construction/Reconstruction/Modification Date = The stationary spark ignition (SI) internal combustion engine (ICE) commenced construction, reconstruction or modification prior to June 12, 2006.
UNIT 933	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	Brake HP = Stationary RICE with a brake HP greater than 500 HP. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Normal use. Stationary RICE Type = 2 stroke spark ignited lean burn engine
GLYTANK	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)
GRPTK1	40 CFR Part 60, Subpart K	60K	Construction/Modification Date = On or before June 11, 1973
GRPTK2	40 CFR Part 60, Subpart Ka	60Ka	Product Stored = Stored product other than a petroleum liquid
GRPTK3	40 CFR Part 60, Subpart Ka	60Ka	Product Stored = Petroleum liquid (other than petroleum or condensate) Storage Capacity = Capacity is 40,000 gallons (151,416 liters) or less
GRPTK4	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid

Unit ID	Regulation	Index Number	Basis of Determination*
			Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)
T-107	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)
T-501A	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)
T-501B	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)
T-501C	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)
BOI-1	40 CFR Part 60, Subpart D	60D	Construction/Modification Date = After September 18, 1978. Covered Under Subpart Da = The steam generating unit is not covered under 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing fossil fuel-fired steam generating unit. Heat Input Rate = Heat input rate is less than or equal to 250 MMBtu/hr (73 MW).
BOI-1	40 CFR Part 60, Subpart Db	60Db-001	Construction/Modification Date = On or before June 19, 1984.
BOI-1	40 CFR Part 60, Subpart Dc	60Dc-001	Construction/Modification Date = On or before June 9, 1989.
BOI-1	40 CFR Part 63, Subpart DDDDD	63DDDDD-01	Construction/Reconstruction Date = Construction or reconstruction began on or before June 4, 2010.
DEHYBOI	40 CFR Part 60, Subpart D	60D	Construction/Modification Date = After September 18, 1978. Covered Under Subpart Da = The steam generating unit is not covered under 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing fossil fuel-fired steam generating unit. Heat Input Rate = Heat input rate is less than or equal to 250 MMBtu/hr (73 MW).
DEHYBOI	40 CFR Part 60, Subpart Db	60Db-002	Construction/Modification Date = On or after November 25, 1986, and on or before July 9, 1997. Heat Input Capacity = Heat input capacity is less than or equal to 100 MMBtu/hr (29 MW).
DEHYBOI	40 CFR Part 60, Subpart Dc	60Dc-002	Construction/Modification Date = After June 9, 1989 but on or before February 28, 2005. Maximum Design Heat Input Capacity = Maximum design heat input capacity is less than 10 MMBtu/hr (2.9 MW).

Unit ID	Regulation	Index Number	Basis of Determination*
DEHYBOI	40 CFR Part 63, Subpart DDDDD	63DDDDD-02	Construction/Reconstruction Date = Construction or reconstruction began on or before June 4, 2010.
H-1	40 CFR Part 60, Subpart D	60D	Construction/Modification Date = After September 18, 1978. Covered Under Subpart Da = The steam generating unit is not covered under 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing fossil fuel-fired steam generating unit. Heat Input Rate = Heat input rate is less than or equal to 250 MMBtu/hr (73 MW).
H-1	40 CFR Part 60, Subpart Db	60Db-003	Construction/Modification Date = On or before June 19, 1984.
H-1	40 CFR Part 60, Subpart Dc	60Dc-003	Construction/Modification Date = On or before June 9, 1989.
H-1	40 CFR Part 63, Subpart DDDDD	63DDDDD-03	Construction/Reconstruction Date = Construction or reconstruction began on or before June 4, 2010.
H-3	40 CFR Part 60, Subpart D	60D	Construction/Modification Date = After September 18, 1978. Covered Under Subpart Da = The steam generating unit is not covered under 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing fossil fuel-fired steam generating unit. Heat Input Rate = Heat input rate is less than or equal to 250 MMBtu/hr (73 MW).
H-3	40 CFR Part 60, Subpart Db	60Db-004	Construction/Modification Date = On or before June 19, 1984.
H-3	40 CFR Part 60, Subpart Dc	60Dc-004	Construction/Modification Date = On or before June 9, 1989.
H-3	40 CFR Part 63, Subpart DDDDD	63DDDDD-04	Construction/Reconstruction Date = Construction or reconstruction began on or before June 4, 2010.
H-5	40 CFR Part 60, Subpart D	60D	Construction/Modification Date = After September 18, 1978. Covered Under Subpart Da = The steam generating unit is not covered under 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing fossil fuel-fired steam generating unit. Heat Input Rate = Heat input rate is less than or equal to 250 MMBtu/hr (73 MW).
H-5	40 CFR Part 60, Subpart Db	60Db-005	Construction/Modification Date = On or before June 19, 1984.
H-5	40 CFR Part 60, Subpart Dc	60Dc-005	Construction/Modification Date = On or before June 9, 1989.
H-5	40 CFR Part 63, Subpart DDDDD	63DDDDD-05	Construction/Reconstruction Date = Construction or reconstruction began on or before June 4, 2010.
FL-1	30 TAC Chapter 111, Visible Emissions	R1111	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.

Unit ID	Regulation	Index Number	Basis of Determination*
FL-1	40 CFR Part 60, Subpart A	60A	Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18. Adhering to Heat Content Specifications = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4). Flare Assist Type = Non-assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
FL-1	40 CFR Part 63, Subpart A	63A	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
FL-2	30 TAC Chapter 111, Visible Emissions	R1111	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.
FL-2	40 CFR Part 60, Subpart A	60A	Subject to 40 CFR § 60.18 = Flare is not subject to 40 CFR § 60.18.
FL-2	40 CFR Part 63, Subpart A	63A	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
FL-3	30 TAC Chapter 111, Visible Emissions	R1111	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.
FL-3	40 CFR Part 60, Subpart A	60A	Subject to 40 CFR § 60.18 = Flare is not subject to 40 CFR § 60.18.
FL-3	40 CFR Part 63, Subpart A	63A	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
GO-FLARE1	30 TAC Chapter 111, Visible Emissions	R1111	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.
GO-FLARE1	40 CFR Part 63, Subpart A	63A-1	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Air assisted
AMNVENT	30 TAC Chapter 112, Sulfur Compounds	R112	Sulfur Recovery Plant = The gas sweetening unit is not using sulfur recovery.
PRO-AMINE	30 TAC Chapter 112, Sulfur Compounds	R112	Sulfur Recovery Plant = The gas sweetening unit is not using sulfur recovery.
UNIT 184	40 CFR Part 60, Subpart GG	60GG	Peak Load Heat Input = Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to 100 MMBtu/hr (107.2 GJ/hr). Construction/Modification Date = On or before October 3, 1977.
UNIT 924	40 CFR Part 60, Subpart GG	60GG	Peak Load Heat Input = Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to 100 MMBtu/hr (107.2 GJ/hr). Construction/Modification Date = After October 3, 1977 and on or before January 27, 1982.

Unit ID	Regulation	Index Number	Basis of Determination*
			NOx Allowance = The owner or operator is not electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a). Sulfur Content = Compliance is demonstrated by determining the sulfur content of the fuel. Turbine Cycle = Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam. Fuel Type Fired = Natural gas meeting the definition in § 60.331(u). Subpart GG Service Type = Type of service other than research and development, emergency, military or electrical utility generation. Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage. Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.
UNIT 925	40 CFR Part 60, Subpart GG	60GG	Peak Load Heat Input = Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to 100 MMBtu/hr (107.2 GJ/hr). Construction/Modification Date = After October 3, 1977 and on or before January 27, 1982. NOx Allowance = The owner or operator is not electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a). Sulfur Content = Compliance is demonstrated by determining the sulfur content of the fuel. Turbine Cycle = Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam. Fuel Type Fired = Natural gas meeting the definition in § 60.331(u). Subpart GG Service Type = Type of service other than research and development, emergency, military or electrical utility generation. Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage. Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.
UNIT 926	40 CFR Part 60, Subpart GG	60GG	Peak Load Heat Input = Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to 100 MMBtu/hr (107.2 GJ/hr). Construction/Modification Date = After October 3, 1977 and on or before January 27, 1982. NOx Allowance = The owner or operator is not electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a). Sulfur Content = Compliance is demonstrated by determining the sulfur content of the fuel. Turbine Cycle = Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam. Fuel Type Fired = Natural gas meeting the definition in § 60.331(u). Subpart GG Service Type = Type of service other than research and development, emergency, military or electrical utility generation. Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage. Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.
UNIT 927	40 CFR Part 60, Subpart GG	60GG	Peak Load Heat Input = Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to 100 MMBtu/hr (107.2 GJ/hr).

Unit ID	Regulation	Index Number	Basis of Determination*
			Construction/Modification Date = After October 3, 1977 and on or before January 27, 1982. NOx Allowance = The owner or operator is not electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a). Sulfur Content = Compliance is demonstrated by determining the sulfur content of the fuel. Turbine Cycle = Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam. Fuel Type Fired = Natural gas meeting the definition in § 60.331(u). Subpart GG Service Type = Type of service other than research and development, emergency, military or electrical utility generation. Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage. Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.
UNIT 930	40 CFR Part 60, Subpart GG	60GG	NOx Control Method = No NO_x control method is used. Peak Load Heat Input = Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to 100 MMBtu/hr (107.2 GJ/hr). Construction/Modification Date = On or after October 3, 1982 and before July 8, 2004. NOx Allowance = The owner or operator is not electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a). NOx Monitoring Method = No continuous monitoring system is used. Sulfur Content = Compliance is demonstrated by determining the sulfur content of the fuel. Turbine Cycle = Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam. Fuel Type Fired = Natural gas meeting the definition in § 60.331(u). Subpart GG Service Type = Type of service other than research and development, emergency, military or electrical utility generation. Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage. Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.
FUG	40 CFR Part 60, Subpart KKK	60KKK	Facility Type = Affected facility is the group of all equipment except compressors within a process unit. Construction/Modification Date = On or before January 20, 1984.
FUG KKK	40 CFR Part 60, Subpart KKK	60KKK	Closed Vent Systems = No closed-vent systems addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Facility Type = Affected facility is the group of all equipment except compressors within a process unit. Heavy Liquid Service = No pump in heavy liquid service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Light Liquid Service = Pressure relief device in light liquid service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Open-Ended Valves or Lines = No open-ended valves or lines addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Vacuum Service = No component in vacuum service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the

Unit ID	Regulation	Index Number	Basis of Determination*
			fugitive unit. Vapor Recovery System = No vapor recovery system addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Gas/Vapor Service = Valves in gas/vapor service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Non-VOC or Non-Wet Gas Service = No component in non-VOC or non-wet gas service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Facility Covered by 40 CFR Part 60, Subparts VV or GGG = Facility not covered by NSPS Subpart VV or Subpart GGG or NESHAP Subpart V. Light Liquid Service = Pump in light liquid service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Complying with § 60.482-8 = Complying with 40 CFR 60.482-8. Compressors = Compressor not in VOC or Wet Gas Service. Enclosed Combustion Device = No enclosed combustion device addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Complying with § 60.482-7 = Complying with 40 CFR 60.482-7. Control Devices Used to Comply With AMEL = No control devices used to comply with AMEL. Flanges and Other Connectors = Flanges or other connectors addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Gas/Vapor Service = No pressure relief device in gas/vapor service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Heavy Liquid Service = No pressure relief device in heavy liquid service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Reciprocating Compressor in Wet Gas Service = Reciprocating compressor not in wet gas service (or not reciprocating compressor). Complying with § 60.482-2 = Complying with 40 CFR 60.482-2. Light Liquid Service = Valves in light liquid service addressed in 40 CFR 60 (NSPS) Subpart KKK included in the fugitive unit. Flare = No flare control device addressed in 40 CFR 60 (NSPS) Subpart KKK. Complying with § 60.482-8 = Complying with 40 CFR 60.482-8. Complying with § 60.482-7 = Complying with 40 CFR 60.482-7.
FUG OOOOA	40 CFR Part 60, Subpart OOOOa	60OOOOa	Construction/Reconstruction/Modification Date = After September 18, 2015. Affected Facility Type = Group of equipment within a process unit, other than a compressor, not subject to 40 CFR Part 60, Subparts VVa, GGG or GGGa.
FUG-1	40 CFR Part 63, Subpart HH	63HH	ALTERNATE MEANS OF EMISSION LIMITATION = NO APPROVED ALTERNATE MEANS OF EMISSION LIMITATION COMPRESSORS = COMPONENT NOT PRESENT ENCLOSED COMBUSTION DEVICE = COMPONENT NOT PRESENT FLANGES AND OTHER CONNECTORS = COMPONENT NOT PRESENT

Unit ID	Regulation	Index Number	Basis of Determination*
			FLARE = COMPONENT NOT PRESENT OPEN-ENDED VALVES OR LINES = COMPONENT NOT PRESENT PRESSURE RELIEF DEVICE IN GAS/VAPOR SERVICE = COMPONENT NOT PRESENT PRESSURE RELIEF DEVICE IN LIQUID SERVICE = COMPONENT NOT PRESENT PRODUCT ACCUMULATOR VESSEL = COMPONENT NOT PRESENT PUMPS = COMPONENT NOT PRESENT VALVES = COMPONENT NOT PRESENT VAPOR RECOVERY SYSTEM = COMPONENT NOT PRESENT Subject to Another Regulation = Fugitive unit is subject to and controlled under the provisions of 40 CFR part 63, Subpart HH. LESS THAN 300 OPERATING HOURS = ALL COMPRESSORS OR ANCILLARY EQUIPMENT OPERATE 300 HOURS OR MORE PER YEAR IN VHAP SERVICE. VACUUM SERVICE = NO COMPRESSORS OR ANCILLARY EQUIPMENT OPERATE IN VACUUM SERVICE.
CT-1	40 CFR Part 63, Subpart Q	63Q	Used Compounds Containing Chromium on or After September 8, 1994 = The industrial process cooling tower has not used compounds containing chromium on or after September 8, 1994.
GRP111A	30 TAC Chapter 111, Visible Emissions	R1111	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113. Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit. Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3). Construction Date = On or before January 31, 1972 Effluent Flow Rate = Effluent flow rate is less than 100,000 actual cubic feet per minute.
GRP111B	30 TAC Chapter 111, Visible Emissions	R1111	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113. Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit. Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3). Construction Date = After January 31, 1972 Effluent Flow Rate = Effluent flow rate is less than 100,000 actual cubic feet per minute.
DEHYVENT	40 CFR Part 63, Subpart HH	63HH	Alternate Means of Emission Limitation (AMEL) = The EPA Administrator has not approved an alternate means of emission limitation in accordance with 40 CFR § 63.777 or no alternate has been requested.

* - The “unit attributes” or operating conditions that determine what requirements apply

NSR Versus Title V FOP

The state of Texas has two Air permitting programs, New Source Review (NSR) and Title V Federal Operating Permits. The two programs are substantially different both in intent and permit content.

NSR is a preconstruction permitting program authorized by the Texas Clean Air Act and Title I of the Federal Clean Air Act (FCAA). The processing of these permits is governed by 30 Texas Administrative Code (TAC) Chapter 116.111. The Title V Federal Operating Program is a federal program authorized under Title V of the FCAA that has been delegated to the state of Texas to administer and is governed by 30 TAC Chapter 122. The major differences between the two permitting programs are listed in the table below:

NSR Permit	Federal Operating Permit(FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.
Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.	Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.
Permits have a table listing maximum emission limits for pollutants	Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.
Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.	Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated.
NSR permits are issued independent of FOP requirements.	FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference

New Source Review Requirements

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room,

located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. In addition, many of the permits are accessible online through the link provided below. The Public Education Program may be contacted at 1-800-687-4040 or the Air Permits Division (APD) may be contacted at 1-512-239-1250 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. Registrations submitted by permittees are also available online through the link provided below. The following table specifies the permits by rule that apply to the site.

The status of air permits, applications, and Permits by Rule (PBR) registrations may be found by performing the appropriate search of the databases located at the following website:

www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

Details on how to search the databases are available in the **Obtaining Permit Documents** section below.

New Source Review Authorization References

Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 17457	Issuance Date: 05/13/2015
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.352	Version No./Date: 09/04/2000
Number: 106.352	Version No./Date: 02/27/2011
Number: 106.352	Version No./Date: 02/02/2012
Number: 106.352	Version No./Date: 11/22/2012
Number: 106.355	Version No./Date: 11/01/2001
Number: 106.359	Version No./Date: 09/10/2013
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.492	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.512	Version No./Date: 06/13/2001
Number: 6	Version No./Date: 05/05/1976
Number: 6	Version No./Date: 05/12/1981
Number: 7	Version No./Date: 11/05/1986
Number: 9	Version No./Date: 05/08/1972
Number: 51	Version No./Date: 11/05/1986
Number: 53	Version No./Date: 11/05/1986
Number: 57	Version No./Date: 05/05/1976
Number: 57	Version No./Date: 05/12/1981
Number: 58	Version No./Date: 05/08/1972
Number: 58	Version No./Date: 05/05/1976
Number: 58	Version No./Date: 05/12/1981

New Source Review Authorization References

Number: 59	Version No./Date: 05/08/1972
Number: 64	Version No./Date: 05/08/1972
Number: 66	Version No./Date: 11/05/1986
Number: 70	Version No./Date: 05/08/1972
Number: 72	Version No./Date: 05/08/1972
Number: 72	Version No./Date: 05/05/1976
Number: 72	Version No./Date: 05/12/1981
Number: 82	Version No./Date: 12/01/1972
Number: 107	Version No./Date: 05/12/1981

Emission Units and Emission Points

In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sand-blasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the “Maximum Allowable Emission Rate Table”, or “MAERT” for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

Thus, by reference, an emission unit in a Title V operating permit is linked by reference number to an NSR authorization, and its related emission point.

Monitoring Sufficiency

Federal and state rules, 40 CFR § 70.6(a)(3)(i)(B) and 30 TAC § 122.142(c) respectively, require that each federal operating permit include additional monitoring for applicable requirements that lack periodic or instrumental monitoring (which may include recordkeeping that serves as monitoring) that yields reliable data from a relevant time period that are representative of the emission unit’s compliance with the applicable emission limitation or standard. Furthermore, the federal operating permit must include compliance assurance monitoring (CAM) requirements for emission sources that meet the applicability criteria of 40 CFR Part 64 in accordance with 40 CFR § 70.6(a)(3)(i)(A) and 30 TAC § 122.604(b).

With the exception of any emission units listed in the Periodic Monitoring or CAM Summaries in the FOP, the TCEQ Executive Director has determined that the permit contains sufficient monitoring, testing, recordkeeping, and reporting requirements that assure compliance with the applicable requirements. If applicable, each emission unit that requires additional monitoring in the form of periodic monitoring or CAM is described in further detail under the Rationale for CAM/PM Methods Selected section following this paragraph.

Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected

Periodic Monitoring:

The Federal Clean Air Act requires that each federal operating permit include monitoring sufficient to assure compliance with the terms and conditions of the permit. Most of the emission limits and standards applicable to emission units at Title V sources include adequate monitoring to show that the units meet the limits and standards. For those requirements that do not include monitoring, or where the monitoring is not sufficient to assure compliance, the federal operating permit must include such monitoring for the emission units affected. The following emission units are subject to periodic monitoring requirements because the emission units are subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement that does not already require monitoring, or the monitoring for the applicable requirement is not sufficient to assure compliance:

Unit/Group/Process Information	
ID No.: GRP111A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(A)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: If alternative fuel is fired for > 24 consecutive hours, report as a deviation, or conduct observation using Test Method 22. Report as a deviation if visible emissions are observed using Test Method 22 and opacity > 30% using Test Method 9.	
Basis of monitoring: Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.	

Unit/Group/Process Information	
ID No.: GRP111B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: PM (Opacity)	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: If alternative fuel is fired for > 24 consecutive hours, report as a deviation, or conduct observation using Test Method 22. Report as a deviation if visible emissions are observed using Test Method 22 and opacity > 20% using Test Method 9.	
Basis of monitoring: Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.	

Unit/Group/Process Information	
ID No.: UNIT 930	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG
Pollutant: NO_X	Main Standard: § 60.332(a)(2)
Monitoring Information	
Indicator: NOX Concentration	
Minimum Frequency: 2 years	
Averaging Period: N/A	
Deviation Limit: Maximum NOX Concentration = 150 ppm	
Basis of monitoring: It is widely practiced and accepted to calibrate and use a portable analyzer or NOx CEMS/PEMS to measure NOx concentration with procedures such as EPA Test Method 7. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Additionally, measuring the NOx concentration is provided as a monitoring option for any control device because an increase in NOx concentration may be indicative of the control device performance. Outlet NOx concentration has been used as an indicator in many federal and state rules.	

Unit/Group/Process Information	
ID No.: UNIT 930	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG
Pollutant: NO_X	Main Standard: § 60.332(a)(2)
Monitoring Information	
Indicator: Fuel Consumption	
Minimum Frequency: Weekly	
Averaging Period: N/A	
Deviation Limit: Maximum fuel consumption limit = 2.282 MMSCF	
Basis of monitoring: It is widely practiced and accepted to use performance tests, manufacturer's recommendations, engineering calculations and/or historical data to establish a correlation between fuel consumption and emission rates. In situations where such a correlation exists, measuring, calculating and recording the fuel consumption rate indicates whether the emission limitation or standard is being met.	

Obtaining Permit Documents

The New Source Review Authorization References table in the FOP specifies all NSR authorizations that apply at the permit area covered by the FOP. Individual NSR permitting files are located in the TCEQ Central File Room (TCEQ Main Campus located at 12100 Park 35 Circle, Austin, Texas, 78753, Building E, Room 103). They can also be obtained electronically from TCEQ's Central File Room Online (https://www.tceq.texas.gov/goto/cfr-online). Guidance documents that describe how to search electronic records, including Permits by Rule (PBRs) or NSR permits incorporated by reference into an FOP, archived in the Central File Room server are available at https://www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

All current PBRs are contained in Chapter 106 and can be viewed at the following website:

https://www.tceq.texas.gov/permitting/air/permitbyrule/air_pbr_index.html

Previous versions of 30 TAC Chapter 106 PBRs may be viewed at the following website:

www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html

Historical Standard Exemption lists may be viewed at the following website:

www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html

Additional information concerning PBRs is available on the TCEQ website:

https://www.tceq.texas.gov/permitting/air/nav/air_pbr.html

Available Unit Attribute Forms

OP-UA1 - Miscellaneous and Generic Unit Attributes
OP-UA2 - Stationary Reciprocating Internal Combustion Engine Attributes
OP-UA3 - Storage Tank/Vessel Attributes
OP-UA4 - Loading/Unloading Operations Attributes
OP-UA5 - Process Heater/Furnace Attributes
OP-UA6 - Boiler/Steam Generator/Steam Generating Unit Attributes
OP-UA7 - Flare Attributes
OP-UA8 - Coal Preparation Plant Attributes
OP-UA9 - Nonmetallic Mineral Process Plant Attributes
OP-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes
OP-UA11 - Stationary Turbine Attributes
OP-UA12 - Fugitive Emission Unit Attributes
OP-UA13 - Industrial Process Cooling Tower Attributes
OP-UA14 - Water Separator Attributes
OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
OP-UA16 - Solvent Degreasing Machine Attributes
OP-UA17 - Distillation Unit Attributes
OP-UA18 - Surface Coating Operations Attributes
OP-UA19 - Wastewater Unit Attributes
OP-UA20 - Asphalt Operations Attributes
OP-UA21 - Grain Elevator Attributes
OP-UA22 - Printing Attributes
OP-UA24 - Wool Fiberglass Insulation Manufacturing Plant Attributes
OP-UA25 - Synthetic Fiber Production Attributes
OP-UA26 - Electroplating and Anodizing Unit Attributes
OP-UA27 - Nitric Acid Manufacturing Attributes
OP-UA28 - Polymer Manufacturing Attributes
OP-UA29 - Glass Manufacturing Unit Attributes
OP-UA30 - Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill Attributes

OP-UA31 - Lead Smelting Attributes
OP-UA32 - Copper and Zinc Smelting/Brass and Bronze Production Attributes
OP-UA33 - Metallic Mineral Processing Plant Attributes
OP-UA34 - Pharmaceutical Manufacturing
OP-UA35 - Incinerator Attributes
OP-UA36 - Steel Plant Unit Attributes
OP-UA37 - Basic Oxygen Process Furnace Unit Attributes
OP-UA38 - Lead-Acid Battery Manufacturing Plant Attributes
OP-UA39 - Sterilization Source Attributes
OP-UA40 - Ferroalloy Production Facility Attributes
OP-UA41 - Dry Cleaning Facility Attributes
OP-UA42 - Phosphate Fertilizer Manufacturing Attributes
OP-UA43 - Sulfuric Acid Production Attributes
OP-UA44 - Municipal Solid Waste Landfill/Waste Disposal Site Attributes
OP-UA45 - Surface Impoundment Attributes
OP-UA46 - Epoxy Resins and Non-Nylon Polyamides Production Attributes
OP-UA47 - Ship Building and Ship Repair Unit Attributes
OP-UA48 - Air Oxidation Unit Process Attributes
OP-UA49 - Vacuum-Producing System Attributes
OP-UA50 - Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes
OP-UA51 - Dryer/Kiln/Oven Attributes
OP-UA52 - Closed Vent Systems and Control Devices
OP-UA53 - Beryllium Processing Attributes
OP-UA54 - Mercury Chlor-Alkali Cell Attributes
OP-UA55 - Transfer System Attributes
OP-UA56 - Vinyl Chloride Process Attributes
OP-UA57 - Cleaning/Depainting Operation Attributes
OP-UA58 - Treatment Process Attributes
OP-UA59 - Coke By-Product Recovery Plant Attributes
OP-UA60 - Chemical Manufacturing Process Unit Attributes
OP-UA61 - Pulp, Paper, or Paperboard Producing Process Attributes
OP-UA62 - Glycol Dehydration Unit Attributes
OP-UA63 - Vegetable Oil Production Attributes